Report to the Auburn City Council

Action Item
10
Agenda Item No.

City Manager Approval

To:	Mayor and City Council Members
From:	Bernie Schroeder, Director of Public Works
By:	Carie Huff, Associate Civil Engineer
Date:	October 10, 2011
Subject:	Palm Avenue Sidewalk and Bicycle Lane Project – Sidewalk Alternatives

The Issue

Shall the City Council select the preferred design for the Palm Avenue Sidewalk and Bicycle Lane Project?

Conclusion and Recommendation

Staff recommends that the City Council, by **MOTION,** select a preferred design alternative for the Palm Avenue Sidewalk and Bicycle Lane Project.

Background

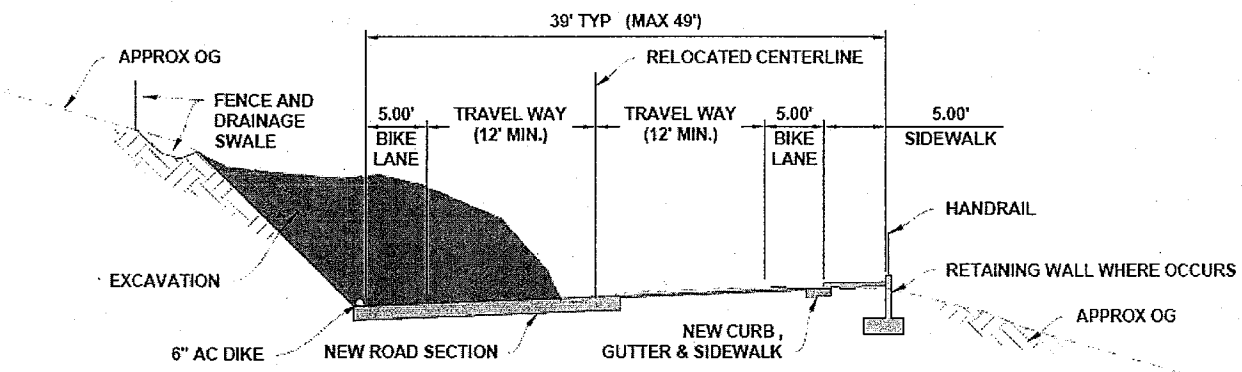
The City was awarded the Palm Avenue Sidewalk and Bicycle Lane Safe Routes to School Grant and the Congestion Mitigation Air Quality (CMAQ) funds in June 2007 for $696,955 to be used for sidewalk and bicycle lanes along Palm Avenue and associated roadway improvements between Nevada Street and Highway 49. Funding for the project was split between preliminary engineering at $65,000, right of way at $25,000 and $606,955 for construction. Additionally, $102,033 of CMAQ funds has been allocated for the project.

On March 14, 2011, staff presented three potential alignments for the sidewalk and bicycle lanes along Palm Avenue. Option 2 (sidewalk on the south side of Palm Avenue, but included significant retaining walls and/or engineered fill on the south side of Palm Avenue to reduce the amount of excavation on the north side of the street) was eliminated from consideration due to cost and Option 3 (sidewalk on the north side of Palm Avenue which required pedestrians to cross Palm Avenue at a mid-block crossing) was eliminated from consideration due to safety concerns. Staff's recommendation was Option 1:

Original Option 1 – $839,355:
Option 1 includes a five foot sidewalk with curb and gutter on the south side of Palm Avenue with Class II/5-foot on-street painted bike lane on the north and south side of Palm Avenue.

BENEFITS	DRAWBACKS
Minimal need for engineered fill and/or retaining walls on the south side of Palm Avenue.	Extensive hillside excavation will be required on the north side of Palm Avenue. Although, less excavation will be required compared to Alignment 4.

Students/pedestrians will not have to cross Palm Avenue and vehicular traffic will not be disturbed with a crosswalk.	Right of way acquisition on the north side of Palm Avenue will be required (approximately 0.51 acres).
Best meets the definition of a complete street by containing separate routes of travel for vehicles (roadway), bicycles (Class II Bike Lanes), and pedestrians (5-foot wide sidewalk).	Extensive grading of the driveways located on the north side of Palm Avenue at the corner closest to Nevada Street will be required.
Existing residential driveways on the south side of Palm Avenue will not require extensive grading/ modifications.	Will likely require up to 5 utility pole relocations.
Minimal right of way acquisition if any is required on the south side of Palm Avenue.	There is no barrier or separation between the sidewalk and the roadway.
Appears to be the most cost effective alternative.	
Minimal landscape installation and scheduled maintenance will be required.	



OPTION-1 TYPICAL SECTION

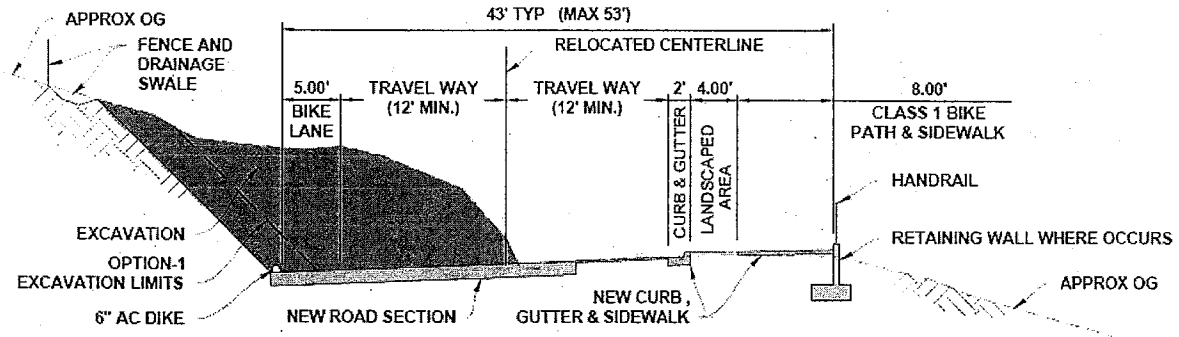
Council requested that staff re-evaluate the alignments along Palm Avenue and the potential for separated sidewalk. Additionally, Council requested staff to consider guardrail as an option for safety purposes. Staff and Coastland Civil Engineering pursued this request and are prepared to present two alternatives:

Option 4 – $1,008,051:

Option 4 includes an eight foot wide shared sidewalk/Class I bike path (bike path is separate from automobile traffic) along the entire length of the south side of Palm Avenue with a four foot wide landscape buffer between the roadway and the new shared sidewalk. There is also a Class II/five-foot on-street bike lane on the north side of the roadway within the project limits.

BENEFITS	DRAWBACKS
Minimal need for engineered fill and/or retaining walls on the south side of Palm Avenue.	Very extensive hillside excavation will be required on the north side of Palm Avenue.
Students/pedestrians will not have to cross Palm Avenue and vehicular traffic will not be disturbed with a crosswalk.	Right of way acquisition on the north side of Palm Avenue will be required (approximately 0.80 acres).
The separated sidewalk/bike path is an alternative to help reduce vehicle/pedestrian or vehicle/bicycle related accidents.	Extensive grading of the driveways located on the north side of Palm Avenue at the corner closest to Nevada Street will be required.

Existing residential driveways on the south side of Palm Avenue will not require extensive grading/modifications.	Will likely require up to 5 utility pole relocations.
Minimal right of way acquisition if any is required on the south side of Palm Avenue.	Appears to be the most expensive alternative.
	Increased risk of pedestrian/bicycle related collisions.
	The 4 foot wide landscaped buffer will require additional landscaping costs and routine maintenance will be required.
	This alternative does not include a Class II bike lane for bicycles traveling eastbound on Palm Avenue. Bicyclists travelling in this direction will need to share the 8' wide sidewalk/bike path with pedestrians. This concept will best suit the needs for students from EV Cain school but may not work well for cyclists travelling through this segment of Palm Avenue.



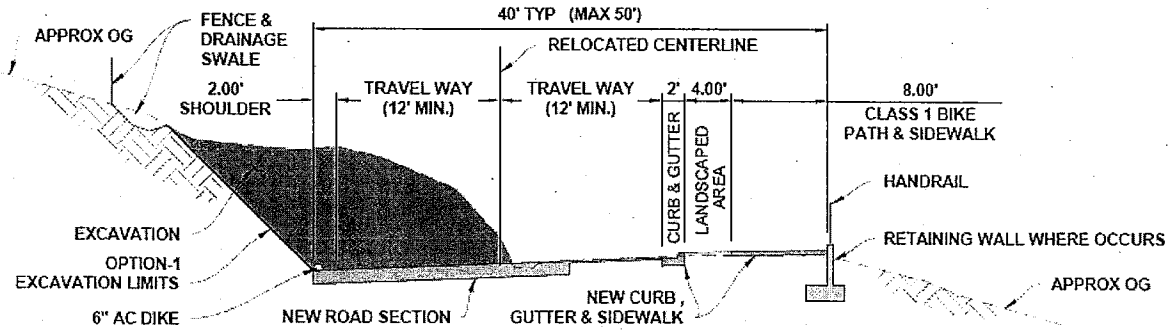
OPTION-4 TYPICAL SECTION

Option 5 – $908,490:

Option 5 includes an eight foot wide shared sidewalk/Class I bike path along the entire length of the south side of Palm Avenue with a four foot wide landscape buffer between the roadway and the new shared sidewalk. There would be no Class II/five-foot on-street bike lanes on either side of the street.

BENEFITS	DRAWBACKS
Minimal need for engineered fill and/or retaining walls on the south side of Palm Avenue.	Extensive hillside excavation will be required on the north side of Palm Avenue.
Students/pedestrians will not have to cross Palm Avenue and vehicular traffic will not be disturbed with a crosswalk.	Right of way acquisition on the north side of Palm Avenue will be required (approximately 0.51 acres)
The separated sidewalk/bike path is an alternative to help reduce vehicle / pedestrian or vehicle / bicycle related accidents.	Extensive grading of the driveways located on the north side of Palm Avenue at the corner closest to Nevada Street will be required.
Existing residential driveways on the south side of Palm Avenue will not require extensive grading/modifications.	Will likely require up to 5 utility pole relocations.

Minimal right of way acquisition if any is required on the south side of Palm Avenue.	Increased risk of pedestrian/bicycle related collisions.
	The 4 foot wide landscaped buffer will require additional landscaping costs and routine maintenance will be required.
	This alternative does not include Class II bike lanes for bicycles traveling in both directions on Palm Avenue. Bicyclists travelling in this direction will need to share the 8' wide sidewalk/bike path with pedestrians. This concept will best suit the needs for students from EV Cain school but may not work well for cyclists travelling through this segment of Palm Avenue.



OPTION-5 TYPICAL SECTION

Guardrail:

Installation of guardrail is intended to protect the motorist from a roadside obstacle. Guardrail is constructed to allow for an approximate three-foot deflection from vehicle impact. If guardrail were placed at the back of curb in the options presented above, there would be impacts to the pedestrians and the bicyclists, potentially posing as a collision hazard to the pedestrian/bicyclist. There are maintenance concerns associated with guardrail as well as the cost for initial installation (approximately $150 per linear foot). Option 4 and 5 include the landscape buffer along the shared sidewalk which would allow for the deflection without impacting the shared sidewalk.

Conclusion:

Option 1 is the least disruptive to the existing property owners and subsequently, it is also the least expensive while still providing sidewalk and a bike lane on the south side of Palm Avenue and a bike lane on the north side of Palm Avenue. With the realignment of the road (the addition of retaining walls on the south side and the excavation into the hillside on the north), the roadway will be opened up, almost doubling the current width, providing for greater sight distance and safer turning movements around the S-curve. This widening of the S-curve would not require the installation of guardrail.

As discussed previously, City staff has met and discussed the project with the majority of property owners along Palm Avenue and they have indicated potential issues about the project. Driveways are a major concern as well as access to the nursery during construction. Access to the nursery will be maintained during construction and will be specifically defined in the bid documents. Also, it is anticipated that several existing issues regarding the driveways will actually be corrected during construction. The property owners have indicated their willingness to work with the City in preliminary discussions which would reduce right-of-way issues. With direction from City Council,

staff will work with Coastland Civil Engineering, Inc. on the final design for the alternative selected. Once the plans are complete, staff will bring the project back to City Council for permission to advertise.

Alternatives Available to Council; Implications of Alternatives

1. Select a preferred option based on proposed alignment information and costs.
2. Propose modifications to the options presented.

Fiscal Impact

Funding for this project is federal funds that are administered by the State of California Department of Transportation under the Federal Safe Routes to School program as well as Congestion Mitigation Air Quality (CMAQ) funding. Following is a breakdown of the funding:

CMAQ – Congestion Mitigation Air Quality	**$102,033**
City of Auburn CMAQ Match (11.47%)	**$15,693**
Federal Safe Routes to School Program	**$696,955**
City of Auburn Safe Routes to School Match (10%)	**$69,695**
Total	**$884,376**

The Safe Routes to School and CMAQ grants require the City of Auburn to match in an amount of $85,388 (anticipated out of local transportation funds). Furthermore, the City is responsible for any additional money over the grant amount. Staff has been in contact with Caltrans to investigate whether additional funds are available. Preliminary discussions with Caltrans indicate that an additional $199,624 is available for the project which brings the total amount of funding available to $1,084,000.

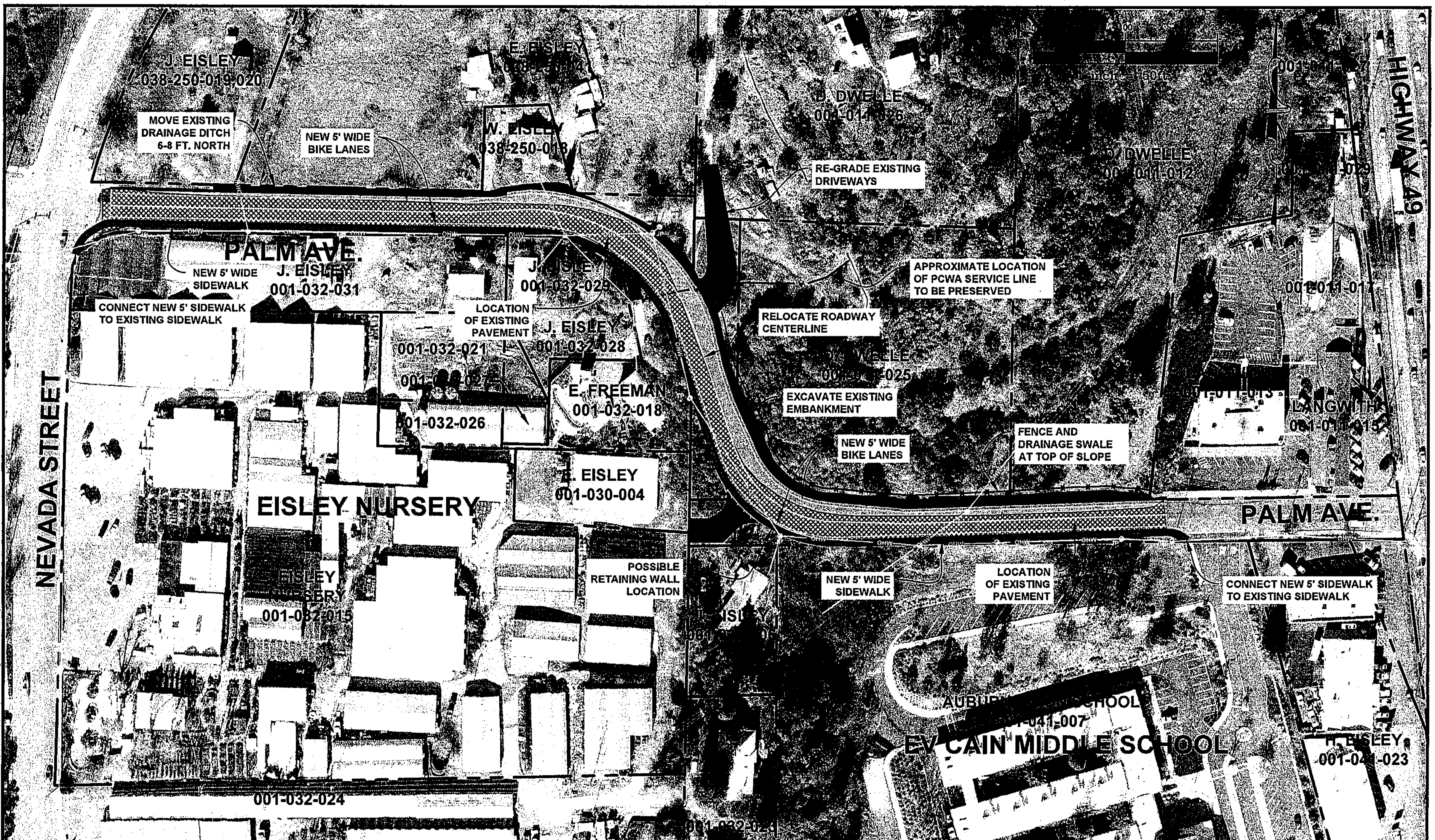
The City of Auburn awarded Coastland Civil Engineering $99,533 to complete the preliminary and the final design (engineering plans and specifications). Additionally, there are estimates to complete the project which include City of Auburn staff time, construction administration and materials testing ($15,000, $50,000 and $10,000 respectively).

Coastland Civil Engineering design	**$99,533**
City of Auburn staff time (estimate)	**$15,000**
Construction Administration (estimate)	**$50,000**
Construction Materials Testing (estimate)	**$10,000**
Total	**$174,533**

Therefore, the City of Auburn has $909,467 to spend on the construction of Palm Avenue Sidewalk and Bicycle Lane Project without authorizing additional money.

Attachments:

Palm Avenue Sidewalk and Bicycle Lane – Option 1
Palm Avenue Sidewalk and Bicycle Lane – Option 4
Palm Avenue Sidewalk and Bicycle Lane – Option 5

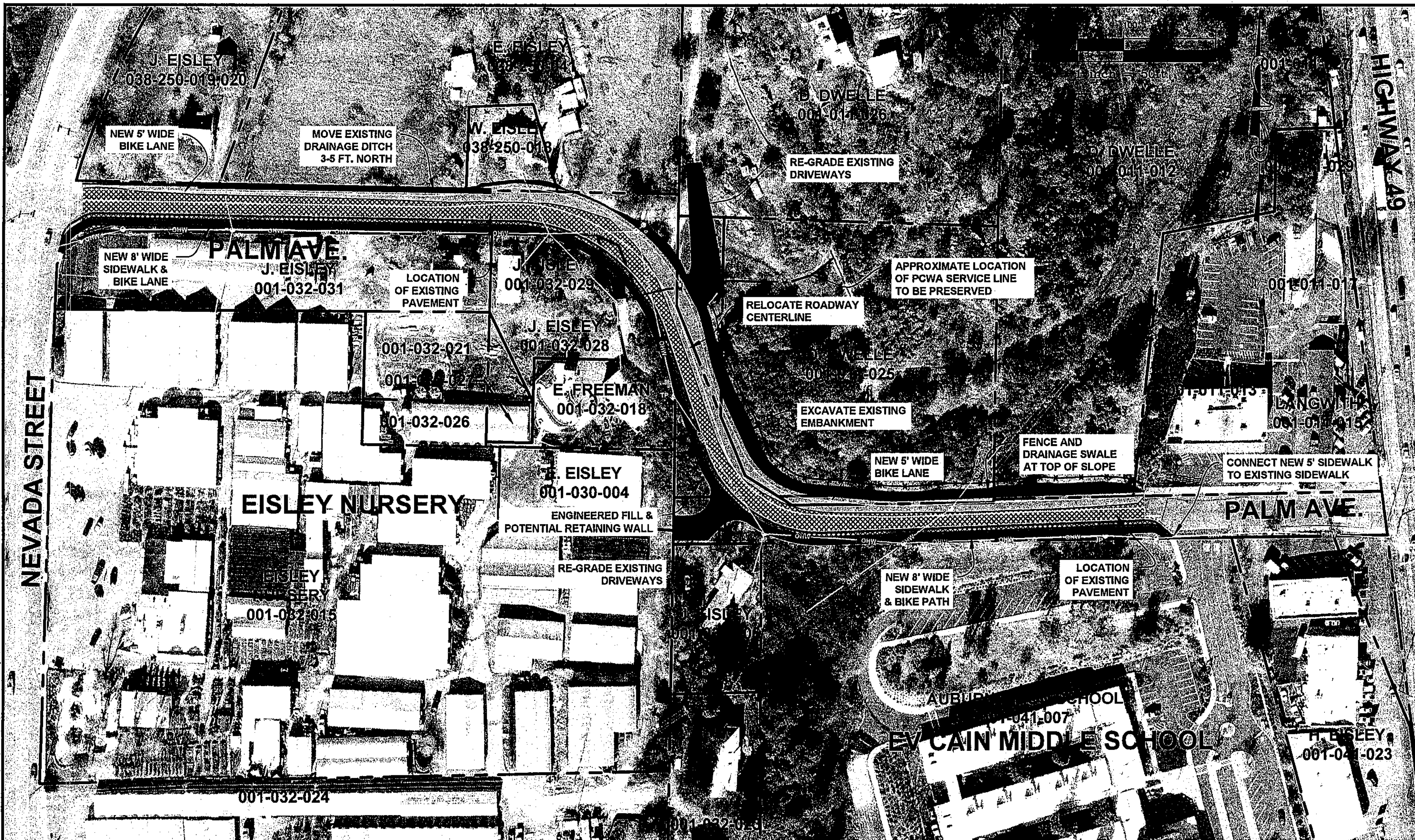


NOTE:
EXTENTS OF PROPOSED IMPROVEMENTS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY.
ACTUAL LIMITS TO BE DETERMINED DURING FINAL DESIGN.

Coastland Civil Engineering, Inc.
11810 Kemper Road, Auburn, CA 95603
530.888.9929 530.889.9979 Fax

CITY OF AUBURN
PALM AVENUE SAFE ROUTES TO SCHOOL
SIDEWALK & BIKE LANE PROJECT
OPTION 1

ORIGINAL PLOT DATE: DATE



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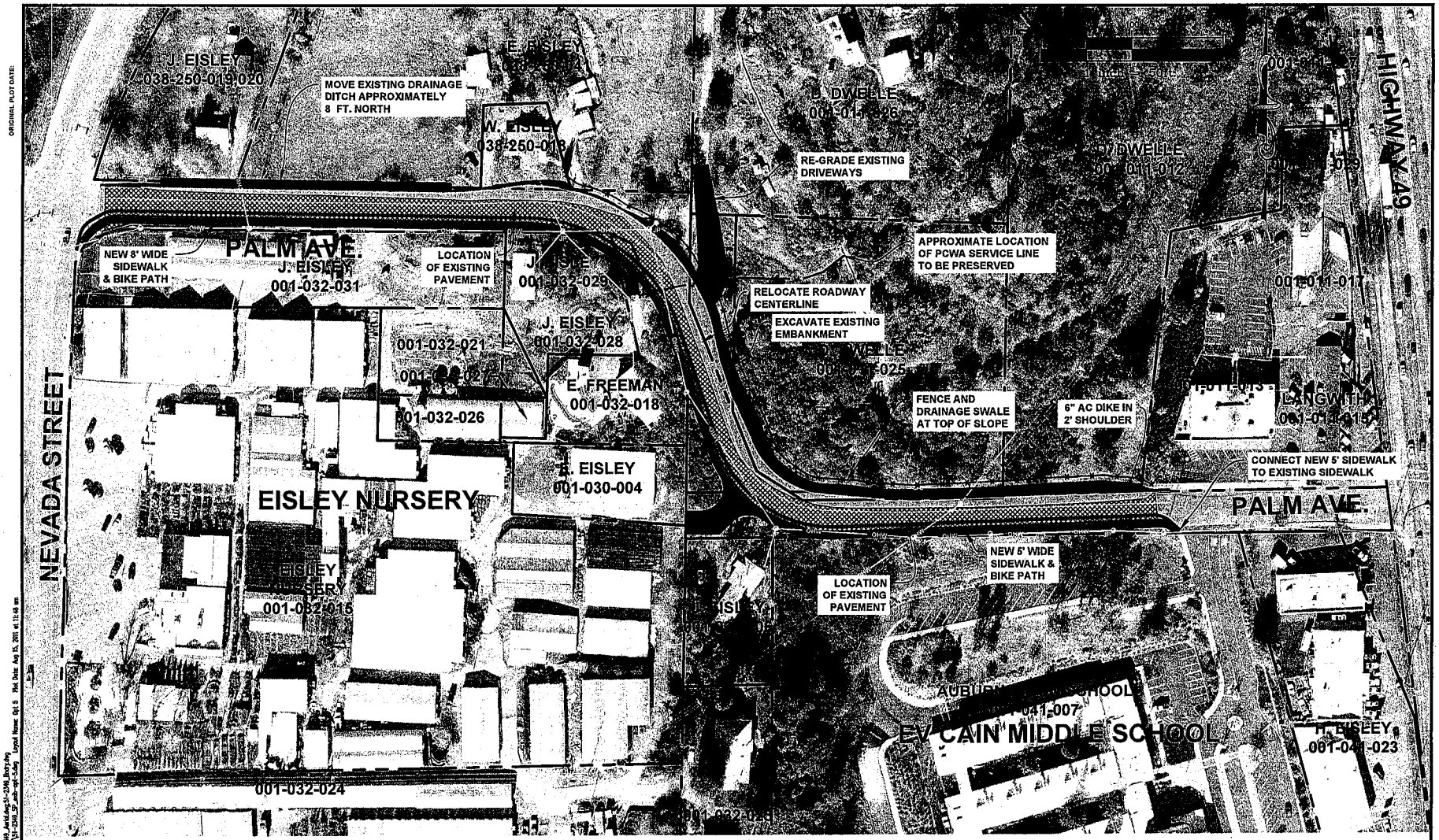
CITY OF AUBURN
PALM AVENUE SAFE ROUTES TO SCHOOL
SIDEWALK & BIKE LANE PROJECT
OPTION 4

ORIGINAL PLOT DATE: DATE



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CITY OF AUBURN

PALM AVENUE SAFE ROUTES TO SCHOOL SIDEWALK & BIKE LANE PROJECT OPTION 5

ORIGINAL PLOT DATE: